DOCUMENT RESUME

ED 028 180 24 TE 001 333

Unit 1103: The Nature and Evaluation of Argument.
Minnesota Univ., Minneapolis. Center for Curriculum Development in English.
Spons Agency-Office of Education (DHEW), Washington, D.C. Bureau of Research.
Bureau No-BR-5-0658
Pub Date 68
Contract-OEC-SAE-3-10-010
Note-83p.
EDRS Price MF-$0.50 HC-$4.25
Descriptors-Composition (Literary), Critical Thinking, *Curriculum Guides, Debate, *English Instruction, *Grade 11, *Language, Literary Conventions, Logic, *Rhetoric, Secondary Education, Speech Skills, Writing Skills
Identifiers-Minnesota Center Curriculum Development in English, *Project English

This 11th-grade unit on language of discourse is designed to help students gain the ability to evaluate argument, to construct logical and reasonable discourse, and to recognize ethical standards of free speech and inquiry. Stephen Toulmin's model of "evidence-warrant-claim" is used as a basic pattern for both the evaluation and construction of argument. The nature of proof (motivational, authoritative, and substantive) is then reviewed with a particular focus on (1) lines of argument--e.g., causality, generalization, and analogy, (2) varieties of proof--e.g., fact and opinion, and (3) tests for logical adequacy--e.g., clarity, internal and external consistency, and verifiability. Finally, the ethics of argument, or the ends and means of persuasion, are determined. Readings from such sources as Walter Lippman, David Lloyd George, and Mark Twain are analyzed, and students are asked to develop speeches and essays using the various approaches they have learned. Included are procedural notes, lectures, sample discussion questions and answers, worksheets, and suggested student activities. (JB)

ED028180

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Unit 1103

The Nature and Evaluation of Argument

Grade Eleven

TE 001 333

CAUTIONARY NOTE

These materials are for experimental use by Project English fellows and their associates who contributed to their development.

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MATERIALS NEEDED

Lippman, Walter. "The Indispensable Opposition," from The Atlantic Monthly, 1939.

Lloyd George, David. "A Scrap of Paper,"

Schwartz, Robert L. "The Case for Fast Drivers"

PREFACE

TO THE TEACHER

"Controversies big and little arise inevitably and constantly among individuals, groups, and nations. Mankind throughout its history has known and used only two ultimate methods of settling the inevitable controversies which are a part of living. These two methods always and basically are either to fight it out and decide the controversy by force, giving the victory necessarily to the side with the stronger muscles, the heavier clubs, the abler armies, or the bigger bombs, or else to talk it out and decide it in private conversation, in court, in legislature, or in international conference, giving victory necessarily to the party with the more acceptable evidence, argument, appeal. In other words, the only ultimate choice is between bullets and arguments--force and reason."

From Argumentation and Debate: Techniques of a Free Society, James H. McBurney and Glen Mills

Rationale or Background for Use of Toulmin System

The ideals expressed in this passage from McBurney and Mills' book are frequently heard. In a governmental process which supports the ethic of free speech and inquiry within the context of rational problem solving as opposed to coercion or other non-rational means, the schools and the teachers are usually given the responsiblity of teaching future citizens to follow these ideals, while the rest of the society seems to act in flagrant violation of them in most practical matters.

Effective, rational argumentation has traditionally been an educational goal, but observation of the uses and misuses of argument in private and public contexts shows that little progress has been made. This unit has been structured as an attempt to make the teacher's job somewhat more reasonable. As only one example, a principle weakness of the classical approach to argumentation, as we have interpreted it since Quintilian and other classical rhetoricians, tends to be limited to matters of ultimate or absolute truth. While such matters may function adequately for the sophisticated philosopher, the student in the secondary school is unlikely to feel the same sense of urgency as the philosopher. This student, like the great majority of the people in his society, is more concerned with the more immediate problems in practical affairs--problems that are usually characterized by decisions based upon probability rather than an absolute truth.

The principles of traditional or classical argumentation, while they certainly have established value to the serious student of rhetoric and dialectic, are rather complex, especially in matters of probability, for most secondary school students. Classical argumentation, as it was taught in the Greek and Roman schools, as as it has been passed down to the present day, tends to be prescriptive. The student is asked to manipulate argument construction to fit into the accepted logical patterns. High school students tend to find this too difficult, arbitrary or artificial for practical use. As a result, secondary school instruction in argumentation has too often been limited to spurious treatments of the deductive syllogism that provide little practical or critical value to the student. What is clearly needed is a system of argumentation that is drawn from the basic patterns in which we usually think when we make assertions supported by relevant evidence. The Toulmin system, as Brockreide and Ehninger point out in their article, provides, essentially, a more useful pattern for either the construction or the evaluation of arguments. This article can be found in the Quarterly Journal of Speech, February, 1960, 46 pp. 44-53.

The Purposes of the Unit

...To provide the student with a useful framework for the construction and evaluation of practical argument.

...To develop student proficiency in the use of logical, reasoned discourse, founded on acceptable bases of argumentation.

...To develop student awareness of the types of argument, as opposed to purely emotional and, of course, coercive measures.

...To promote the student's sense of responsibility for upholding the ethical standards that are vital to free speech andinquiry, both in the construction and evaluation of argument.

These goals, obviously, cannot be reached within a few weeks. The processes and terminology will probably take most of this time, and the situations in which these are used are constantly changing, demanding adaptations and interpretations. With a firm background with the Toulmin system, however, the student is given an essential starting point.

To The Teacher

Procedures, Sample Questions for Discussion, Sample Introductions, and Sample Summaries are supplied for your guidance. It is assumed that you will adapt these to your own classes and students. Likely answers to discussion questions are indicated in parentheses.

Special attention should be paid to the places in the unit in which the word "ATTENTION" is used. This serves to call your attention to specific kinds of generalizations which might be drawn at that point.

In this unit, as in all other units using the Toulmin structure of argument, an article by Wayne Brockreide and Douglas Ehninger, "Toulmin on Argument: An Interpretation and Application," is included for teacher reference. Toulmin's argument is gaining wide acceptance

as the most useful argumentative structure for practical modern applications. This unit is limited to the Toulmin structure, because it can be taught and used in the classroom with greater ease and greater success than classical argumentation and logic. Since this system might be new to the teacher, the best explanatory article is included. For further reading of the primary source, you might read Stephen Toulmin's The Uses of Argument, Cambridge University Press, 1958. Another valuable reference, from which much of the material in this unit has been taken, is Brockreide and Ehninger's, Decision by Debate, Dodd, Mead, and Company, 1963.

After reading this article, the teacher might wish to add examples to this unit to aid student understanding. Particular attention should be paid to a careful explanation of the terms--their relationships and the differentiations between them--to your students, as they may be somewhat confused at first. It is further recommended that it be stressed that the Toulmin structure does not prescribe the order of argument; the Toulmin terms may occur in a variety of organizational patterns, depending on the strategy of the arguer. Students tend to take the structure too literally, always organizing an argument in the "evidence-warrant-claim" pattern. This pattern, for example, would virtually eliminate deductive argument.

A Note to the Teacher

On the Order of Presentation

The order in which the material in this unit is presented depends partially on the unit's position in the eleventh grade sequence. This unit is written under the assumption that MPEC unit 1102, Persuasion, has already been taught. If, however, the teacher wishes to use unit 1102 after this unit, certain changes should probably be made in the order of presentation of the material in this unit. In Part III, The Modes of Proof, Parts A and B, authoritative and motivational proof, are included in this order to provide transition from the persuasion unit. If that unit is to be taught after this one, these can be used as a transition if substantive proof is treated first. All these suggestions are based upon the idea that substantive proof is the primary concern of this unit, the other modes of proof given heavier emphasis in the persuasion unit.

OUTLINE OF CONTENT

I. Introduction: The Importance of Argument

II. The Toulmin Model

A. Evidence -- Data

B. Warrant --Backing

C. Claim -- Qualifier

III. The Modes of Proof

A. Authoritative Proof

1. Nature

2. Evaluation

B. Motivational Proof

1. Nature

2. Evaluation

C. Substantive Proof

1. Nature

a. The Lines of Argument

1) Causality

2) Sign

3) Generalization

4) Parallel Case

5) Analogy

6) Classification

b. The Varieties of Proof

1) Fact-------Opinion

2) Direct -------Indirect

3) Primary -------Secondary

4) Prearranged-------Casual

5) Written -------Unwritten

6) Negative -------Positive

2. Evaluation of Substantive Proof: Tests of Logical Adequacy

a. Quantity

b. Clarity

c. Consistency

1) Internal

2) External

d. Verifiability --Availability

e. Competency, Reliability, Lack of Bias

IV. The Ethics of Argument

Sample Introduction

The unit we will be studying for the next few weeks is titled The Nature and Evaluation of Argument. Perhaps it would be best to start this by clarifying the word "argument." I can think of two major meanings of this word. First, the popular definition, the meaning that would probably occur to most people immediately, is that an argument is an event--an event in which two or more people are disagreeing on some subject. This would be the meaning in the sentence, "I had an argument with my father."

A second meaning, also often used, is that of a process and a piece of discourse that is the result of the process. This is the meaning that we are using in this unit. We are talking about a process of reasoning, the possession of which is supposed to make the human being unique in the animal kingdom. Since most of us like to believe this, it would seem worthwhile to spend something more than lip service to the reasoning process.

Write "REASONING" on the chalkboard

The process of reasoning, ARGUMENT, is an important part of our culture; we use arguments in an infinite range of situations for an infinite number of purposes. One of the most obvious places where one can find arguments is on the editorial page of the newspaper, where one can easily find all types of arguments with widely varying quality. Let's look at a sample of an actual letter to the editor, one in which the writer makes a strong claim for logic and reasoning in his argument.

PROCEDURE: Pass out Excerpt #1 and explain the Ashbrook Amendment to the class

LETTERS TO THE EDITOR

1. Communism and Atheism - A Letter to the Editor of the Minneapolis Star, March 18, 1964.

To the Editor:

I cannot see how any true American would want to criticize the Ashbrook Amendment. In a Christian country, founded on the ideals of the Bible, is it not unpatriotic to be an atheist? Since it is well known that the Communists do not believe in God, it follows logically that anyone who does not believe in God is probably a Communist. How can our American people fail to see the logic of sentiments such as these?

_____, St. Paul, Minnesota

(The Ashbrook Amendment to the Civil Rights Bill denied certain freedoms on the basis of disaffiliation with popular religious groups.)

2. Strapless Bathing Suits - A Fictitious Letter to the Editor

Dear Editor:

The ladies in our Garden and Music Appreciation Club enjoy an occasional walk around our city's lakes. We have had just about enough of these people who run around the beaches in strapless bathing suits. Fifty years ago we would have thrown them in jail where they belong. Small wonder we have such a high crime rate and so many people in insane asylums.

Yours truly,

Abigail Dowdy

An immediate question you might ask is about the Ashbrook Amendment. This amendment was attached to the 1964 Civil Rights Bill, but the amendment was not passed. The amendment was an attempt to exclude any person who was not affiliated with a recognized religious group from the privileges guaranteed by the Civil Rights bill. In other words, an atheist could not expect the full protection of the new bill in matters of civil rights.

PROCEDURE: Allow time for the students to read the letter several times.

Read this letter carefully. Read it through several times.

Sample Discussion Questions

1. If you were going to put this man's central idea in one sentence, how would you word it?

   (The Ashbrook Amendment should not be criticized; it is a good amendment.)

2. Why does he feel that this is a good amendment?

   (Because Atheism is contrary to the "American way," and atheists, therefore, should not be guaranteed the rights of good Christian Americans.)

3. Whar are the underlying assumptions he makes in this letter?

   (That America is a "Christian country")
   (That America was founded on the "ideals of the Bible")
   (Thqt Communists do not believe in God)
   (That his "sentiments" are logical)

ATTENTION

It is not expected or necessary that students be able to use specific terminology of argumentation in answering these questions. Proficiency with terminology is the concern later in the unit.

4. Let's examine these assumptions, since his argument depends on their acceptance. Can we say that this is a "Christian country?"

   (No, we could say that the majority of Americans claim to be Christians, but there are several other religions in this country, among them the Jewish, the Buddhist, the Islam, and the Hindu. The Constitution's Bill of Rights guarantees the freedom of religion, and it does not mention the Christian religion specifically.)

5. Can we say that America is founded on the ideals of the Bible?

   (No, although it is fairly obvious that the Christian religion was the most prevalent in the men who wrote the foundation documents. While the ideals of the Bible might have influenced these men heavily, they again do not make specific mention of the Bible, trying to allow religious freedom. While there are many references to God, we might have a rather difficult time showing the difference between the God in the Bible and the God in the Koran, at least not in the evidence we are given in these documents.)

6. How about the assumption that Communists do not believe in God?

   (For one thing, the use of "God" in the letter assumes the Christian meaning; perhaps the Communists have something else in mind.)
   (The public documents of the U.S.S.R. and the writings of the founders of communism do indicate denial of Christian beliefs.)
   (With more careful wording, this assumption can be at least partially proved.)

7. How does the phrase "logic of sentiments" strike you?

   (There is a difference between logic or reason and sentiments or emotions. There is obviously some question about the use of the word "logic.")

8. There's a supposed logical construct in the argument; is this a valid or acceptable logical relationship?

   (No, the second part of the construct, "anyone who does not believe in God is probably a Communist," is a hasty conclusion. We have not shown that there cannot be atheists who are not Communists. Furthermore, this man's obvious interpretation of God is in the Christian tradition, omitting all non-Christian religions. By his definition, all other religions are practiced by atheists.)

9. Going back to the first line, what is the effect of his phrase "I cannot see how any <u>true American</u>"?

   (This implies that anyone who criticizes the amendment must not be a true American.)

10. Based on our evaluation of the argument in this letter, do we accept or reject it as reasoned argument as it claims to be?

    (Reject it.)

11. Could you still favor the amendment, even though you reject the arguments in this letter?

    (If we could assume that these are the arguments intended by those who wrote the amendment, we might have serious reservations. On the other hand, this letter might not be such a representation, and we would have to look at the other arguments.)

ATTENTION

In many cases the personal commitments of students might interfere with their willingness to critically examine both sides of an issue. Further clarification might be needed.

I think this probably should be stressed at this point. In this unit we will be evaluating a large number of arguments, and we try to make this evaluation as objective as possible. Given the "rules" of reasoned, logical discourse, we will see how arguments meet our expectations, but our personal support of one side of a controversy is not the essential matter. We should be able to evaluate arguments on either side with equal enthusiasm.

Sample Lecture

Later in the unit we will be talking about the matter of RELEVANCE, the appropriateness of relating one thing to another. Before that, however, we might ask a question of relevance about this unit and its value to you as students, as people (not that the two are mutually exclusive), and as citizens of a social order. In other words, what is all this to you? Why should you study this material? All of you already have considerable experience in arguing. You argue with parents, teachers, and each other most of the time, though sometimes you might not realize that you are using argument.

Sample Lecture Continued

While you might use arguments frequently, I'm quite certain that you don't always use them as effectively as you might. I'm even more certain that you don't evaluate arguments as well as you might, at least if you are any representation of the general public. It is the general purpose of this unit to help you avoid the pitfalls that the writer of our letter to the editor illustrated, and the avoidance of these pitfalls has both a public and a private value.

The freedoms of speech and inquiry, certainly some of the most important rights our culture is supposed to guarantee, place a significant burden of thought on the American public. While these are privileges, they also include built-in responsibilities. Ideally we do not accept everything we are told without thinking about them. We should be expected to ask questions. We are expected to speak out if we disagree. If we support a cause, it is both our right and our responsibility to express our feelings openly and responsibly. As we all know, it is unfortunately true that these ideals are not always realized. In personal, social, economic, political, and philosophical situations, we find frequent examples of people failing to uphold these standards.

In almost any area of human endeavor, we can see increasing tendencies toward conforming to group thought.

Sample Lecture Continued

ATTENTION

To supplement this idea, it is strongly recommended that students read the excerpt, "The Indispensable Opposition" by Walter Lippman, found in Atlantic Monthly, 1939.

This does not mean that conformity, per se, is undesirable; without some conformity a culture would be chaotic. When people, however, stop using the freedoms of speech and inquiry, and when these freedoms are not guaranteed to others, the damage should be obvious. When it becomes more comfortable not to think, not to question, and not to speak out, there is a fairly good chance that these freedoms will become non-existent. This is the public value in studying argumentation; people, hopefully, are concerned about knowing the truth. There will be disagreements about the nature of the truth in a situation, and people will try to convince others about the "truth." ARGUMENT is a primary means of looking for truth in a democratic society. If one studies the history of non-democratic societies, he will find that one of the first measures a totalitarian government is likely to initiate is the control of argument.

Sample Lecture Continued

The private value in studying argument is essentially selfish. People are constantly placed in situations in which they are either the source or the object of arguments. The ability to effectively produce and evaluate arguments is valuable in any of these situations. Whether you are trying to persuade someone to do something for you, or someone is trying to persuade you to think or act in a certain manner, one of the primary processes is argument.

Since argument has long been recognized as a primary means of arriving at truth, many people have tried to find the best ways of producing, evaluating, and teaching the principles involved. As is the case with other subjects, there is some disagreement about the proper methods to use. The scientist uses a well-defined "scientific method". Mathematicians and philosophers use "formal logic," derived primarily from classical logic. Most speakers and writers use what we would call "rhetorical reasoning," reasoning used for a persuasive purpose, with a particular subject, audience, and context. It is with this kind of reasoning that we are concerned. If rhetorical reasoning is to be something we can comfortably use, its principles should not be greatly different from the actual practice in which they are used. This has always been one of the problems in teaching argumentation.

Sample Lecture Continued

For centuries, students have tried to fit arguments of a practical nature into the framework of classical logic, a highly prescriptive, rule-governed system. In many cases, this has proved to be rather like trying to put a square peg into a round hole. The kinds of ultimate distinctions important to classical logic are, in many cases, not appropriate to practical situations in which the choices might not be so clearly distinguished. The most practical way to find a system of argument for practical situations would be to examine large numbers of practical arguments and try to find any recurrent patterns that arguers follow. Fortunately, this has been done for us. In a recent study in which several thousand arguments, ranging from simple to complex, were studied, it was found that over80% of the arguments were constructed in the same general thought pattern. The same pattern is used by Stephen Toulmin, an English logician, in his book, The Uses of Argument, and this unit is constructed around his system. There are only a few essential terms to be remembered in the pattern he describes--fewer terms than the person learns when learning to drive a car. We will begin by partially retracing the process Toulmin used in arriving at his terms, checking their appropriateness, and, finally, applying them to our own purposes.

Sample Transition

Sample Introduction

Procedure: Read to class

Remind students that this letter appears in Excerpt #1

Let's start with another letter to the editor, this time a fictitious one:

Dear Editor:

The ladies in our Garden and Music Appreciation Club enjoy an occasional walk around our city's lakes. We have had just about enough of these people who run around the beaches in strapless bathing suits. Fifty years ago we would have thrown them in jail where they belong. Small wonder we have such a high crime rate and so many young people in insane asylums.

Yours truly,
Abigail Dowdy

This, as I said, is a fictitious letter, but I'm guessing that any of you who read the letters to the editor in the paper have seen several that are quite similar. Perhaps our first reaction would be to dismiss Abigail as a cranky old lady with nothing more to do than critize people who seem to be having fun. Behind this dismissal, however, is a reaction to her argument--a quick reaction like we frequently make when the arguments don't particularly concern us. This is an obvious example; some are more subtle, and we might have difficulty drawing the line between essential matters and those that are inconsequential. Let's look at this one now, and we will move to more important issues later.

Sample Discussion Questions:

Discuss:

1. What is her major idea in this letter?

   (That we should prevent people from appearing on the beaches in strapless bathing suits.)

ATTENTION

This point should be stressed.

2. Does she actually say this?

   (She says she doesn't like it, and she says that these people were put in jail where they belong fifty years ago. She certainly implies that we should prevent this.)

That's correct. Even though she doesn't actually say what should be done, we can get a fairly good idea. This illustrates a rather important aspect of argument. The central ideas in arguments are frequently not stated, but they are suggested or implied. The arguer who does this hopes the readers will fill in the central idea themselves.

1. Can you think of any good label for this part of the argument?

   (thesis, hypothesis, resolution, proposition, CLAIM)

2. For use in the study of argument, we should find a general term that applies to these generally; do you see one that would include most situations and purposes?

   (CLAIM, the others usually are used in more limited purposes.)

ATTENTION

Important Definition

Toulmin uses the term CLAIM in his analysis, and he defines it as "THE APPEAL PRODUCED BY THE ARGUMENT, ALWAYS OF A POTENTIALLY CONTROVERSIAL NATURE." In the past few years, when your teachers have tried to teach you to write coherent paragraphs and papers, you probably heard the terms "topic sentence" and "thesis statement." While these may not always have been controversial, when

they were the teacher was asking for a clear statement of your claim.

Sample Transition

This step, finding the claim of the argument, is often quite easy in practical situations; you might find, however, some situations in your English classes in which the process of finding "claims" is more difficult. When various types of literature, poetry, prose, and drama, include arguments, we often spend considerable time trying to find the claims.

Now that we have found the CLAIM in Abigail's argument, let's look further and see what else we can find in the argument. Normally, we would expect a person who makes a claim to have something to support it. In courtroom practices, the unsupported claim is not allowed. Actually the legal procedures are our best guide for reasoned argument. The strict controls and the established responsibilities for arguers can and are adapted to other situations in which arguments are used; we could assume that an argument that would be admissable in a court of law would be admissable in most other situations as well. As a matter of fact, you will notice throughout this unit that many of the terms are directly borrowed from legal procedures.

In a formal arguments like those of the courtroom, the person who makes a claim is expected to support it; this is known as the "burden of proof." If he does not adequately

Write BURDEN OF PROOF on chalkboard.

assume the burden of proof, his opponent needs only to make a counter claim, which serves to "cancel out" the original claim. For example, if the claim is that "The United Nations should admit Red China," and the claim is not supported in any way, all the opponent needs to do to counter the argument is to restate it in the negative--"The United Nations should not admit Red China." Technically the argument is a draw.

Sample Discussion Questions

Discuss:

1. When you ask your parents for the car, how often do they support their claim, "You should not take the car tonight?"

   (Rarely.)

2. Why don't they support their claim?

   (They don't have to; we have no choice but to accept the argument in most cases.)

We could conclude, then, that there can be arguments that include only the claim, but the acceptance of the claim depends on factors external to the argument.

Now let's get back to our sample argument. Abigail's implied claim is that we should prevent people from appearing on the beaches in strapless bathing suits. Let's see how she supports this claim.

Discuss:

1. Under what conditions would her entire argument be useless?

   (If there were no people running around the beaches in stratpless bathing suits.)

2. Does she take this possibility into account?

   (Yes, in the second sentence, she implies that there are such people, but she doesn't actually prove it.)

3. Obviously she doesn't provide much information about this, but we assume that there is more information behind her statement. We have said that courtroom practices form a guide for argumentation; what would be the legal term for the information she has suggested?

   (Evidence.)

Write EVIDENCE on the chalkboard

4. Would her evidence be adequate in a legal case?

   (No.)

As we did with the claim, we should define evidence, so we can use the term in the say way throughout the unit. The term is popularly used in a general sense, referring to any type of supporting materials. In this unit, however, we are going to use the term in a more limited sense. Our definition will be "A STATEMENT BELIEVED BY A LISTENER OR READER AND USED BY AN ARGUER TO SECURE BELIEF IN HIS CLAIM." In effect, the arguer is telling the listener or reader that if the statement of evidence is believed, the statement of claim should also be believed, provided, of course, that the evidence is closely related to the claim.

We now have Abigail's CLAIM and a suggestion of her EVIDENCE to support the claim. We don't have the complete argument yet; there is an essential intermediate step.

Sample Discussion Questions

Discuss:

1. Does the fact that people do appear at the beach with strapless bathing suits mean that we should prevent them from doing so?

   (No.)

2. Let's take another example that's a little more obvious. Evidence - The population of the U. S. is 190,000,000. Claim - The junior class should hold a car wash. What is wrong with this argument?

   (The evidence and claim are not related.)

3. What we need, then, is some connection of the evidence to the claim. What would happen if we asked the women in Abigail's club if the fact that people appear in stratpless bathing suits means that we should prevent them from doing so? Would they agree?

   (Probably.)

4. So there are differences between your responses to this and the responses of Abigail's friends. Obviously there is not a set connection between this evidence and this claim, and it is necessary to structure this connecting link carefully so that the argument will follow the form the arguer wants. We need a label for this linking device; does anyone have any suggestions?

   (Students will probably not have any.)

5. Let's look at legal proceedings to find one. If a policeman suspects you of possessing stolen goods and wants to look in your house, what does he need to show you before you let him in?

   (A search warrant.)

6. You have all heard this term before; you might also have heard of other warrants like arrest warrants and bench warrants. What does the warrant do?

   (It justifies the search or arrest.)

The function of the warrant in legal matters is to JUSTIFY an action. In the same sense, we can say that the connecting

link between evidence and claim also justifies something. It shows that the evidence is appropriate for the claim. It logically relates evidence to claim, and in this unit we will call this connecting link the WARRANT. The warrant acts as the intermediate step between "what we claim" and "what we have to go on" by showing "how we get there."

Write WARRANT on chalkboard.

Discuss:

Sample Discussion Questions

1. Can you find the warrant in Abigail's argument?

   (Actually she has at least two warrants, although these are not clearly identified.)

   (One warrant is that "Fifty years ago we would have thrown them in jail where they belong.")
   (The other warrant is that this behavior leads to crime and mental illness.)

NOTE: The students may have some difficulty making these or similar responses. Leading questions might be needed.

2. Does she actually state both of these?

   (No, but she strongly implies that these are directly connected to the claim.)

3. Can you think of any possible reasons for leaving out the warrant in an argument?

   (When it is a weak warrant)
   (When you want the listener to fill in the gap himself.)
   (When you are assured that the listener will be able to fill in the appropriate warrant.)

Sample Conclusion

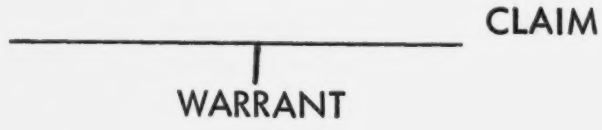
In practical situations you will find many examples of omitted or incomplete warrants. Sometimes this is quite appropriate; in other cases it is the crucial weakness. In general, informal arguments tend to assume warrants, while in formal arguments, greater care is necessary.

These three terms, CLAIM, EVIDENCE, and WARRANT, are the central parts of the Toulmin structure of argument.

Write MAIN PROOF LINE on chalkboard.

Toulmin calls the interaction of these three the MAIN PROOF LINE. This is essential to his definition of argument as "the movement from evidence through a warrant to a claim." Drawn as a diagram, it would look like this:

Draw this diagram on chalkboard



At this point, we need to establish some essential generalizations about the terms in the main proof line.

Sample Discussion Questions

Discuss:

1. Does a CLAIM need to be supported?

   (No always.)

2. When does a CLAIM stand effectively without support?

   (When the audience agrees without further proof.)

3. Could any CLAIM be challenged?

   (Yes, because a claim, by definition, is controversial.)

4. What is the easiest way to refute an unsupported claim?

   (Offer a counter-claim that negates it.)

5. When must EVIDENCE be provided?

   (When the listener or reader will not accept the claim at face value.)

6. When must the WARRANT be provided?

   (Whenever there is any question about the relationship of EVIDENCE to a CLAIM.)

7. Must these terms always be stated in the order in which they are drawn in our diagram of the MAIN PROOF LINE?

   (No, they occur in any order.)

NOTE: If the teacher wishes, these questions could be used in a short quiz at this point.

8. In what situations are we most likely to find all three parts stated openly?

   (In formal arguments. The best example would be court-room procedure.)

Let's look again at Abigail Dowdy's letter in terms of the

MAIN PROOF LINE and the relationship of its parts.

Discuss:

Sample Discussion Questions

The teacher might have to provide questions to elicit these responses.

1. CLAIM

   ...The claim of her argument is not openly stated.
   ...The audience is expected to infer the claim.
   ...The implied claim, in itself, is valid. It suggests a definite action. It does not contradict itself.
   ...The audience must evaluate the other parts of the argument for a valid judgment.

2. WARRANT

   ...Simply because we threw them in jail fifty years ago does not lead to the conclusion that we must do so today.
   ...The statement "where they belong" is not adequate without further proof.
   ...There is no evidence that this behavior causes crime or mental illness.

3. EVIDENCE

   ...We have no information about the frequency of this behavior.
   ...Actually, we have no proof that people are doing this.

If we take Abigail's argument, as we found it constructed, and place it within our diagram of the Toulmin structure, it looks like this. Toulmin defined argument as a "movement" from EVIDENCE through WARRANTS to the CLAIM. If we can accept his definition, then any weakness in the parts would hinder this movement. In the case of Abigail's argument, we have been able to find weaknesses in all three parts of the argument, and because of these weaknesses, we would be quite

ATTENTION

Stress this point; it is important to the students' attitudes about argument and its evaluation.

justified in rejecting her argument. This would not mean that we cannot reasonably agree with the argument as she has stated it. The rejection of an argument does not mean that the ideas behind the argument must also be rejected. In the same sense, a person could severly criticize the car that he owns without denouncing all automobiles; he could accept the general product but reject an individual item because it has not been properly constructed.

We might, in fact, agree with Abigail on other grounds. People frequently do this, but we are concerned with the argument that we can see here. Objectively we reject the argument, but if we belonged to Abigail's club, we might add some of our own evidence and warrants to her argument and accept it.

Sample Transition

We have been discussing the parts of the main proof line in rather general terms. Now we are going to look into these in more detail, and we are going to talk about some new terms of Toulmin's model, the secondary proof line.

Since it is the kernel or core around which the argument is constructed, let's start with CLAIM. Remember that we agreed that the CLAIM is often implied in practical arguments. Here are some sample claims. Look these over for similarities and differences, and try to find any kind of classification system that we might use with CLAIMS.

PROCEDURE: Show Transparency #1 on overhead projector, or read page 24A to class.

NOTE: Allow students to discuss these samples for a few minutes. In the following class discussion, try to establish three general classes of claims and list the samples under them; it would probably be best to label the classes by number, and the appropriate labels can be elicited later.

Transparency #1

Sample List of Claims

1. People who live in the country are healthy.
2. Apple pie is better than cherry pie.
3. In twenty years there will be more automobiles than people in the U. S.
4. Every boy should own a dog.
5. Better dead than Red.
6. Better extinct than pink.
7. Myth is a story acted out by ritual.
8. There are no atheists in foxholes.
9. I wouldn't vote Republican unless they ran the elephant.
10. We should repeal the income tax.
11. Educated people are not superstitious.
12. Buy Right Guard deodorant.
13. The student council is better than nothing.
14. We should not abolish the student council.
15. The student council is a group of students who establish the regulations for extra-curricular activities.
16. The United States should make medical care available for all citizens.
17. Resolved: That nuclear weapons should be controlled by an international organization.
18. We should pass a law against wearing suitless bathing straps on public beaches.
19. Shopping is better downtown than in the suburbs.
20. A college education does not guarantee a greater income.

Class #1

1, 3, 7, 8, 11, 15, 20

Class #2

2, 5, 6, 9, 13, 19

Class #3

4, 10, 12, 14, 16, 17, 18

We have grouped these claims into three categories. Now we'll try to see why these claims fit into these classes.

Sample Discussion Questions

Discuss:

1. What do the claims in Class #1 have in common?

   (They all sound like factual statements.)
   (They are characterized by words like "are", "is," "will be", "does not".)

2. If these seem to be factual statements, does this mean they are free from controversy?

   (No, each one of these claims could be contested.)

Write CLAIM OF FACT on chalkboard

We'll use Toulmin's term for this type of claim and call them CLAIMS OF FACT. This should be qualified, though, by remembering that these are stated as if they were fact; the "factual" content could be questioned. Let's look at the second group.

3. What are the major characteristics of these claims?

   (They have some stated or implied value relationship.)
   (Words like "better" are frequently used.)

4. Could these be controversial?

   (Obviously)

Write CLAIMS OF VALUE on chalkboard

Toulmin's term is one that you have already mentioned. He calls these CLAIMS OF VALUE. This type of claim could

be based on matters of taste, background, moral judgment, or a straight evaluation of something. Let's move on to the third group.

Sample Discussion Questions

5. Are there any major similarities here?

   (All of them suggest or ask for thought or action.)

6. What words do you notice in these?

   (All but one use the word "should".)

7. Can you think of any other similar words?

   (Must, ought, need, can, cannot)

Write CLAIM OF POLICY on chalkboard

The Toulmin term for claims of this type is CLAIMS OF POLICY. The claim of policy advocates some thought or action. Now we have three categories of CLAIMS, the CLAIM OF FACT, the CLAIM OF VALUE, and the CLAIM OF POLICY. All of these, as we previously defined claims, are potentially controversial.

8. Where could these claims be introduced in an argument?

   (Anywhere - beginning, middle, or conclusion)

9. Are these claims always stated in arguments?

   (Not always, but it is preferable to have them openly stated.)

ATTENTION

The teacher should make sure the students understand this.

There is one major clarification that we should make here. If these claims can be stated anywhere, it is obvious that the Toulmin model does not provide a guide for chronological arrangement. Perhaps your first reaction to the Toulmin model would be to organize an argument in a paper by first

stating your evidence, then moving on to the warrant, and then concluding with the claim. This obviously is not the way many arguments are organized; the main proof line terms could be used in any order. The important guide in rational argumentation is not the arrangement of the parts, but that all these parts be given serious consideration, wherever they might actually occur.

Sample Introductory Comments

The main proof line terms comprise the major headings of the argument. These tend to be rather general statements; in most cases they are conclusions that are, in a sense, sub-claims or minor claims within the larger context of the argument. Each of these may be questioned, and each might need additional support.

Write SECONDARY PROOF LINE on chalkboard.

This additional support is found in the SECONDARY PROOF LINE. Each part of the main proof line has a corresponding supporting part in the secondary proof line. In the earlier discussions, we mentioned that court proceedings provide an excellent model, and we will use them to show the secondary proof line. In a law court, the general statements of the main proof line would not be acceptable without further support. Let's use an example that might be painfully familiar to some of you, although I hope this isn't the case.

Sample Illustrations

You are driving down the street when a police car comes up behind you with lights and siren, obviously suggesting that the police would like you to pull over.

A policeman gets out and tells you, "You were speeding; I'm going to have to give you a ticket." He gives you the ticket, and you later appear in traffic court. We will assume that you want to contest the ticket, so you plead not guilty.

Let's try to outline the argument that would be advanced by the police in your trial

Discuss:

Sample Discussion Questions

1. What CLAIM would the police make in court?

   (That you are guilty of a traffic violation, and you should be given the punishment prescribed by the appropriate laws.)

2. What general EVIDENCE would the prosecutor be likely to use?

   (That you were driving forty-five miles per hour in a thirty miles per hour zone. That the laws of the city prescribe speed zones for this street.)

3. What WARRANT could he then use?

   (That violators of these laws should be arrested and brought to trail.)

4. If this were the entire case of the prosecution, what chances would you have of proving your innocence?

   (Actually, the chances would be fairly good. The prosecutor's argument is very general so far, and he has offered very little proof.)

5. First, we should look for any circumstances that would negate the claim, as we did with Abigail Dowdy's claim.

   (This claim would hold unless the charge couldn't be proven.)

ATTENTION

Important Definition

This is a RESERVATION that would apply to any claim. If the claim cannot be supported, it would be rejected by a critical audience. As a general definition, then,

THE RESERVATION INDICATES THE CONDITIONS UNDER WHICH THE CLAIM WOULD HAVE TO BE REJECTED.

Related to the Reservation is a shorter item called the QUALIFIER. You already use qualifiers extensively; these include words like "probably", "definitely", and "possibly." We'll be looking at these in more detail later.

ATTENTION

Important Definition

THE QUALIFIER IS A TERM WHICH INDICATES THE DEGREE OF FORCE WHICH IS INTENDED FOR THE ARGUMENT.

Sample Discussion Questions

6. You remember that the evidence was that you were driving forty-five miles per hour in a zone with a limit of thirty miles per hour. How could this evidence be supported?

   (The policeman could state that you were checked by a radar device, or he could say that he followed you in the police car.)

In most cases this would be fairly strong support. Faced with this kind of proof, the defendent would be expected to come up with some stronger proof that would repudiate it, and this would probably be rather difficult.

This proof, offered to support the EVIDENCE, is called

Write DATA on chalkboard

DATA. While a body of DATA may support the CLAIM,

it does so by supporting the EVIDENCE that is used with the

CLAIM.

7. We said that the warrant in the prosecutor's argument was that the laws of the city prescribe speed limits, and that violators should be arrested and brought to trial. This would be a fairly typical warrant for a trail; how could the prosecutor support this warrant?

   (He could produce a copy of the city statutes.)

Unless your lawyer could find an inconsistency in the laws or a loophole in the quoted law, it would be difficult to repudiate this part of the argument.

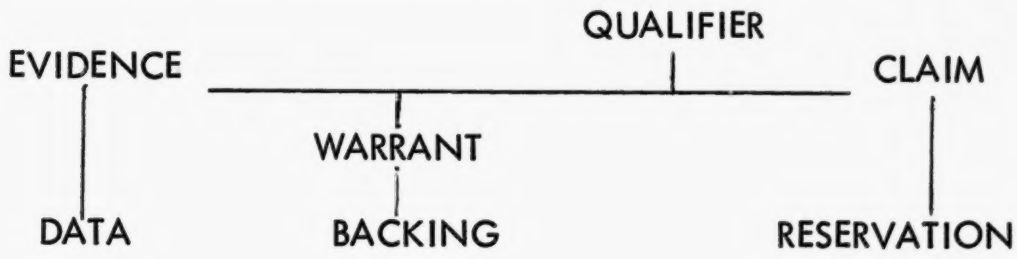
When the WARRANT of an argument is not accepted as it is generally stated, it must be supported. This support is called BACKING. BACKING is to WARRANT as DATA is to EVIDENCE.

Write BACKING on chalkboard

Sample Summary

Draw this diagram on chalkboard

The completed model of an argument with the six parts we have defined could be diagrammed like this:



Let's have a brief review of the important definitions of these terms and some of the relationships between them.

Sample Discussion Questions

If time is limited, the the teacher might wish to provide these generalizations in lecture.

If the teacher wishes, these questions could also be used in a quiz.

Discuss:

1. Are all these parts always stated in arguments?

   (No, they are often implied or taken for granted.)

2. Then when must these be stated?

   (Whenever there is some question or probability that there will be questions.)
   (In formal arguments, there is likely to be more care taken to include these.)

3. Do the parts of the argument need to be used in any particular organizational pattern?

   (No, the order of presentation is not the concern of the Toulmin analysis.)

4. What is the value of this model when it is compared to formal logic?

   (This tends to be the way we usually frame arguments, and secondly, this system is better equipped to deal with approximate proof than formal logic.)

5. Define the following terms:

a. CLAIM - (The appeal produced by the argument, always of a potentially controversial nature.)

b. EVIDENCE - (A statement believed by a listener or reader and used by an arguer to secure belief in his claim.)
(Evidence is usually stated in the form of generalizations.)

c. WARRANT - (The intermediate step which provides the connection between the evidence and the claim.)

d. DATA - (The information used to further support evidence. Data are the information upon which the generalized evidence is based.)

e. BACKING - (Material that supports the warrant; the generalized warrant is a conclusion based upon the backing.)

f. QUALIFIER - (The indication of the force of the claim.)

g. RESERVATION - (Statement of the conditions under which the claim would have to be rejected.)

This, then, is the Toulmin model. It should not be difficult for you to remember the terms and their relationships. Since the Toulmin model is based on the ways we tend to structure arguments in practical situations, it should not be difficult for you to use now. If the entire study of argumentation were as simple as this, we would have little trouble mastering it. There are, however, wide variations within this general structure, and the rest of the unit will be spent on these.

Introduction to the discussion of MODES OF PROOF

It would be quite true to say that we have been talking about arguments in a relatively theoretical manner, and in this theoretical approach it is not difficult to visualize arguments within the Toulmin framework. This is probably the best way to gain an initial understanding of the interactions of the parts of arguments, but to gain a practical, working understanding of argument and the many possible variations, we now must turn to more practical matters; we must try to implement our theoretical understanding of argument-in-general to a practical understanding of argument-in-particular.

When the practical aspects of argument are the primary concern, it becomes obvious that we are dealing with human communication, and our recognition of this should open up new avenues of complexities and applications. Perhaps I've made this sound a little frightening; it might seem at this point that argument must be a subject that is so broad that no individual can ever understand all of it. This, as a matter of fact, might not be too far from the truth, but the argumentative process is so important to public and private social interactions that it is necessary that we learn all we can about it, even though complete understanding might seem like an impossible goal.

Let me make a comparison that I do not think is out of order. If the art of music were controlled to one form that can

Sample Introduction Continued

never vary, it would become rather tedious to listen very frequently. If, in this case, you were a musician, I think you would feel rather limited, and, in fact, handcuffed by the set pattern you dare not break. In argument, it is precisely the diversity that makes it interesting. It is this diversity that enables the individual to create distinctive arguments that are more striking and effective than a never-changing pattern.

If you have studied the process of communication, you already know the major parts of the communication model. For now we are only concerned with the three most essential parts: sender (encoder), message, and receiver (decoder). The diagram showing these is quite simple:

May be drawn on chalkboard

SENDER - - - - - - MESSAGE - - - - - - RECEIVER
(ENCODER) (DECODER)

Certainly there are other factors involved, but these form the nucleus of the communication situation. All three parts are highly influential and important to the communication, and because of this, each part can affect an argument used in communication. In the practical situation, it is obvious that the argument itself, whether printed or written, is not the only matter of importance.

NOTE: Authoritative and motivational proofs will be treated briefly here, since both are developed extensively in Unit 1102, The Language of Persuasion. The most important caution, however, should be to <u>avoid</u> giving students the impression that these can always be neatly separated.

Both the source and the object of the argument can be major influences upon the effect of the argument. This leads us to the three major MODES OF PROOF: AUTHORITATIVE PROOF, SUBSTANTIVE PROOF, and MOTIVATIONAL PROOF.

Authoritative proof derives its strengh or effectiveness from the reputation or "ethos" of the arguer. Substantive proof derives its effectiveness from the "substance" of the argument itself. Motivational proof depends upon the psychological or sociological make-up of the audience. In this unit, we are primarily concerned with substantive proof, in which the emphasis is on reasoned argument. The other two modes, authoritative and motivational proof, depend on suggestion rather than reason, and these are handled more fully in the unit on persuasion. Within this unit, however, we should still recognize that even the most carefully constructed, reasoned argument might be influenced by the person who presents it and the person to whom it is directed. Let's try some examples.

The teacher might wish to ask students for some of these examples.

You can easily think of several examples in which an expert opinion and an inexpert opinion are compared on the same topic, and it is usually fairly obvious which is the one to believe. Sometimes, however, this is not so easy.

Pass out Excerpt #2

Here are several statements from authorities on the value of Mark Twain's The Adventures of Huckleberry Finn. All of these would be accepted by various groups as authorities, but there is obviously some disagreement. How, then, is the individual to know which authority to believe; how can we determine the expertness of different authorities?

Excerpt #2 Opinions of Huckleberry Finn

"The Concord (Mass.) Public Library committee has decided to exclude Mark Twain's latest book from the library. One member of the committee says that, while he does not wish to call it immoral, he thinks it contains but little humor, and that of a coarse type. He regards it as the veriest trash. The librarian and the other members of the committee entertain similar views, characterizing it as rough, coarse, and inelegant, dealing with a series of experiences not elevating, the whole book being more suited to the slums than to intelligent, respectable people."

--The Boston Transcript, March 17, 1885.

"Clemens was sole, incomparable, the Lincoln of our literature."

--William Dean Howels

"I think he mainly misses fire. I think his life misses fire; he might have been something; but he never arrives."

--Walt Whitman

"All modern American literature comes from one book by Mark Twain called Huckleberry Finn. If you read it you must stop where the Nigger Jim is stolen from the boys. That is the real end. The rest is cheating. But it's the best book we've had. All American writing comes from that. There was nothing before. There has been nothing as good since."

--Ernest Hemingway

"Huck Finn is alone; there is no more solitary character in fiction. The fact that he has a father only emphasizes his loneliness; and he views his father with a terrifying detachment. So we come to see Huck himself in the end as one of the permanent symbolic figures of fiction; not unworthy to take a place with Ulysses, Faust, Don Quixote, Don Juan, Hamlet, and other great discoveries man has made about himself."

-- T. S. Eliot

"Mark Twain, without question, was a great artist. There was in him something of that prodigality of imagination, that aloof engrossment in the human comedy, that penetrating cynicism, which one associates with the great artists of the Renaissance."

-- H. L. Mencken

"The more one scans the later pages of Mark Twain's history the more one is forced to the conclusion that there was something gravely amiss with his inner life."

--Van Wyck Brooks

"...one of the world's great books and one of the central documents of American culture."

-- Lionel Trilling

"The Adventures of Huckleberry Finn is one of those rare books which are at once acceptable to the intelligentsia and to that celebrated American phenomenon, the average citizen; it is a book which even anti-literary children read and enjoy."

-- James M. Cox

Sample Discussion Questions

Discuss:

1. What are the three general categories of people represented here?

   (A public library committee, several authors, and a few literary critics.)

2. Is there any way you can evaluate these authorities with the information on this sheet?

   (There might be some possible indication from the language used, but we actually have very little information.) (Some of these authorities, the authors, carry weight because we know them from other situations.)

3. If the reader is not satisfied with the limited remarks here, what can he do?

   (He could read the entire articles from which these comments were taken, and he could read Huckleberry Finn to compare his own reactions to those listed here.)

The teacher might wish to use these differences to illustrate schools of thought in American literary criticism.

4. These comments illustrate an important matter; the authorities on a subject often disagree among themselves. Do you have any ideas about the reasons for this disagreement?

   (These men have different attitudes, tastes, backgrounds, etc... A close examination of these will show that these authorities operate on different assumptions and commitments about the nature of "good" literature.)

Sample Introduction to some important generalizations.

I think we are ready for some important questions about authoritative proof. We can recognize that the force of an argument may be influenced by the person who presents it; even a quick glance at any legislative body will show this. One of the most important considerations when a new bill is being drafted is deciding who is going to introduce it. The junior senator will frequently ask a well known senior senator to introduce new legislation because he is held in higher esteem by the larger group.

In the same sense, the participants in a trail might give careful consideration to the choice of a lawyer, considering other aspects of reputation in addition to knowledge of legal matters.

Let's look at this from a different point of view. The average person often relies heavily upon authority in many fields. We are supposedly concerned here with reasoned argument, and we should ask why authoritative proof should be considered within the area of reasoning.

Sample Discussion Questions

Discuss:

1. If you had a decayed tooth, you would go to a dentist; where would you go to have teeth straightened?

   (To an orthodontist)

2. If you had a brain tumor that had to be removed, why wouldn't you ask your general practicioner to perform the surgery?

   (He doesn't perform that kind of surgery.)

3. If you have heard about a new book and you want more information about it, where would you look?

   (In a book review section of a newspaper or magazine.)

4. Can you see how all this relates to using authoritative proof in argument?

   (Subjects are so specialized that the individual cannot possibly keep up with all that might be of importance to him; he must look to the specialist and trust his information.)

Sample Conclusion

Reasoned argument, especially in a complex culture like ours, might draw its factual information from a wide body of knowledge, much of which must be contributed by

Sample Conclusion Continued

specialists. Given a subject for an argument, most people do not have the time, energy, and motivation to do comprehensive research into the topic. Instead, we let others do it for us. We go to the medical specialist who knows the most about brain tumors; we read the impressions of people we trust when we are thinking about buying a new book. We listen to the expert in foreign affairs to decide where to give economic assistance. In this case, the proof does have substance in that we have sound reasons for listening to such experts.

The major problem in this is deciding who to believe. How do we choose the experts we will trust? How do we know if a given person is, in fact, an expert in the field? How can we judge opinions of supposed experts when they don't agree? These are questions we should ask. These are rather general; let's see if we can make a list of more specific questions to be asked about the sources of authoritative proof.

We will use an example from one of the selections used later in the unit.

Read to Class

In "The Case for Fast Drivers", Robert L. Schwartz states, 'Over 85% of all U. S. traffic accidents are caused by factors other than high speed.'

Procedure: Ask students to make a list of questions. If all these are not suggested, the teacher might wish to add them.

Let's make a list of possible questions we might ask about the source of this information. I'll write them on the board, and you should write the finished list in your notes.

1. Where can we find his statement printed?
2. What qualifications does Mr. Schwartz have to make a statement like this?
3. Did Mr. Schwartz have an opportunity to get the facts on this matter?
4. Has he compiled these "facts" recently?
5. Does he have any biases that would influence his presentation of this information?

Sample Transition

Perhaps it is not necessary that you ask all these questions about every authority you encounter, but even a hasty glance at modern advertising demonstrates the need for a certain amount of skepticism. When authority is as often used as it is in modern American culture, there are bound to be a few arguers who falsely purport to be "experts" in the field, knowing that the general public is susceptible to authoritative or seemingly authoritative recommendations.

Sample Introduction

This leads us to the other end of the argumentative process--the audience. We've already suggested that the public cannot find easy access to all information on any topic, so we rely on those who do have access. This is a practical matter. How about the more elusive aspects of the human being that make him more willing to accept or

reject the same argument at another time? These, of course, are questions that we are not going to answer very well. The social scientists have been working on these for some time, and their generalizations have limited application. The range is so wide, and the reasons fluctuate so greatly that we cannot find formula answers.

Write MOTIVATIONAL PROOF on chalkboard

The conditions in the audience of an argument that affect the acceptability comprise what we call MOTIVATIONAL PROOF. As the name suggests, we are concerned with the motive structures in audiences that cause them to react as they do to arguments. We should be able to find a few general questions that can be used.

Sample Discussion Questions

1. What influences would the educational level of an individual have on his reactions to an argument?

   (If the argument is either too high or too low for the individual's educational level, he might react accordingly. If it is too high, he might not understand it. If it is too low, he might dismiss it as too elementary.)

2. How about the physical state of the individual; how would that affect his reaction?

   (A physical disability might influence his ability to perceive the argument. More temporary conditions like weariness or excitement would also be possible considerations.)

The material on human motivation from unit 1102 might be used in review at this point.

3. In the persuasion unit, we discuss human motives more completely, but as a generalization, what can we say about the individual's motives when they are compared to the motives of the arguer?

   (When there is agreement, the listener or reader will be more receptive. If there is disagreement, the reader or listener is likely to resist.)

ATTENTION

Important Generalization

Our focus in this unit is on substantive proof, but even a short discussion of authoritative and motivational proof makes it obvious that argument cannot be studied completely by looking at the substantive aspects. Arguments are presented by people and they are heard by people. Even the most rational, carefully constructed argument can be influenced by the people involved. The argument that is carefully planned is not an argument until people use it. When people use an argument, it is not likely that they can step back and look at it from a completely objective point of view. Keeping this in mind, then, let's move on to substantive proof.

Sample Transition

While we have recognized that the consideration of authoritative and motivational proof is essential to the study of argument, we have also recognized some of the difficulties and limitations involved. The analysis of these two modes of proof must be capable of the flexibility and variety that characterizes these modes. The aspects of authority and motivation can be difficult to observe, since we often see only the outward reaction or manifestation of factors within the somewhat elusive areas of human behavior.

When we look at the argument itself and the proof that is stated WITHIN the argument, however, we find a more observable mode of proof. Here we are concerned with the "material" that actually makes up the argument; this is the

Write SUBSTANTIVE PROOF on chalkboard

NOTE: Stress that our division into the three moves of proof is an artificial, analytical procedure, and that in practical discourse, these are heavily interrelated.

substance of the argument, and we use the term SUBSTANTIVE PROOF to describe it. Keeping in mind our previous caution that practical argument, as it is used in human communication, involves both authoritative and motivational proof, and that these are very closely interrelated, we can, nevertheless, consider the SUBSTANTIVE aspects of argument in isolation. In other words, SUBSTANTIVE PROOF can be considered without looking at the AUTHORITATIVE or MOTIVATIONAL aspects; we can study substantive argument without regard for its source and object, as long as we recognize that we are temporarily ignoring some aspects that are often highly important.

Procedure: Directions allow students to spend a few minutes with each, then collect the papers and write some of the typical responses on the chalkboard.

Let's start with an exercise with word associations. Write down the first ten words that come to your mind when you hear the word "communism."

Now do the same with the word "democracy."

Sample Introduction

Based on the word associations in the students' responses, the teacher will probably wish to expand this part of the discussion.

As you can see by the examples on the board, there are noticeable similarities with your responses to these two words. It's not the concern of this unit to delve deeply into the reasons behind these similarities, but this does illustrate one of the most important mental processes we use. One of the primary functions of language is to make associations and draw relationships. Since this is essential to the way we think, we can look at some of the fundamental patterns of

Write LINES OF ARGUMENT on chalkboard

patterns of language and thought as central to the study of argument. We are going to be looking at some examples of reasoning for the purpose of finding the recurrent thought patterns that our arguments might follow. These basic thought processes will be called the LINES OF ARGUMENT. This notion is classical in origin; Aristotle's Rhetoric includes a list of 28 "topics", which were called the "places" of argument, places in the thinking where one could go to find the basic patterns of the arguments. We will be using a more simplified list of six.

Before we start discussing these, it might be a good idea to briefly clarify the relationship of the LINES OF ARGUMENT to the Toulmin model. The lines of argument we will be discussing can be applied to the supporting parts of the Toulmin model. The Toulmin model provides a larger framework, and within that framework, there are several possible approaches that might be used. The lines of argument operate within the Toulmin terms, Evidence, Data, Warrant, and Backing. In a sense, we will also be able to see how the Claim is influenced by the line of argument. This should become clarified as we look at examples. Here is an actual example of an argument that you will probably notice is somewhat like Abigail Dowdy's. This was found in the Freedom to Read Bulletin, by Roland Burdick of the American Book Publishers Council.

Channelview, Texas: In this Houston suburb a storm was aroused over "Living Biographies of Great Philosophers." The female leader of the drive to have the book removed from the high school library centered her complaint on the treatment of Plato, who, she reminded us, was a student of Socrates whom the people poisoned "for the ideas he was spreading." Plato talked about free love and communal living, and, she added, "I can't help but believe that this is one reason we have so many sex maniacs walking around."

Discuss:

Sample Discussion Questions

1. First let's try to fit her argument into the Toulmin model; what is the lady's claim?

   (That the above-mentioned book should be taken out of the high school library.)

2. All right, would you call this a claim of fact, value, or policy?

   (A claim of policy; it suggests an action.)

3. What is the general statement of evidence she uses?

   (That Plato was a student of Socrates, who was poisoned by the people for the ideas he was spreading around.)
   (That Plato talked about free love and communal living.)

4. She doesn't actually offer any data, but we might presume that she could if she were asked; are there any questions we might ask about her evidence?

   (There might be some question about her interpretation of the death of Socrates; she has grossly oversimplified it.)
   (That Plato talked about these things might be true, but it might be relevant to know in what ways he talked about these; for all we know from her argument, he may have been opposed to these things.)

5. How does she connect her evidence to her claim; what is her warrant?

   (That the reading of certain books influences or affects sex crime rates.)

6. Does she provide any backing for this warrant?

   (No.)

7. How does this compare to Abigail Dowdy's argument?

   (Abigail's warrant was that running around in strapless bathing suits was the cause of crime and mental illness.)

8. All right, where is the weakness in the reasoning in both of these arguments?

   (They both try to show that certain things are the CAUSE of social problems, and neither of the arguments can adequately prove it.)

You have seen one of the most fundamental and most frequent lines of argument that we use ---<u>argument from cause.</u>

Write ARGUMENT FROM CAUSE on chalkboard.

In our culture, we tend to think in terms of actions, and when we see actions, we expect to see reactions. Something happens to something, and as a result or as a consequence, the object of the action shows effects. This is the CAUSE-EFFECT relationship. If you think about this, I think you will find that you use it quite frequently. This is what is happening when you wonder what would happen if you went to a store after school and bought $100 worth of clothes and charged it to your parents. You have some idea of the possible effects that govern or influence your decision. There are two basic directions we can consider in this line of argument: CAUSE TO EFFECT and EFFECT TO CAUSE. When you hear an

Sample Conclusion

argument that uses a causal pattern, it is extremely important that you recognize which direction is being used. As examples, when you are thinking along the CAUSE TO EFFECT line, you ask, "What would happen if...?" When you are thinking along the EFFECT TO CAUSE line, you ask, "Why did this happen; what caused this?" That this is one of our most basic thought patterns can easily be demonstrated by looking at scientific progress, which depends heavily upon both lines. Throughout history man has asked, "What caused this to happen?" Questions like this are central to the process we call curiosity. We usually have operated on both lines in science; we move from the question, "What causes an object to fall to earth?" to the question, "What would happen if I dropped two objects of different weights from the same height?"

While it is true that these lines of argument are among the most frequently used, it is also true that they are some of the most frequently misused. I think you can see this fairly clearly in the two arguments we have been looking at. Abigail Dowdy has suggested that strapless bathing suits are the cause of mental illness and crime, but as we said, she cannot adequately support this part of her argument. The other argument, the one against the use of Plato in the high

school, also suffers from some of the same weaknesses. This person is somewhat more reasonable about causes when she suggests that this book is "one of the causes" but she cannot support her causal relationship well enough either. This then is a major type of causal deficiency--the INADEQUATELY SUPPORTED CAUSE.

Sample Conclusion

Let's look at another type of deficiency in the use of causal argument. In a very real sense, the two arguments we've been examining also suffer from this weakness. Especially when you are dealing with something as complex as a social problem, the causes of these problems must be carefully considered. It should be obvious that mental illness has a number of possible causes, and it is an over-generalization to say that any one cause is directly responsible for the general effect, the entire social problem. This weakness would be labeled INSUFFICIENT CAUSE; it fails to recognize the complexity of the effect by over-simplifying the cause. Perhaps there are other causes that have significant influence. Perhaps the arguer has failed to differentiate between causes and effects. For example, when one argues that an effect, U. N. control over nuclear weapons, is made impossible by the cause, that there is too much mistrust between the free world and the communist world, he has labeled as the cause something that is actually the effect of a deeper cause. The

mistrust that is mentioned is a result of something deeper, so a true cause-effect analysis would have to recognize the original causes.

There is a third type of causal fallacy that is usually identified by its Latin term, POST HOC, ERGO PROPTER HOC. Translated, this means, "after this, therefore because of this". When someone uses this type of fallacy, he assigns too much importance to the time sequence as the cause-effect relationship. This fallacy is the basis for superstitions. Someone who has just walked under a ladder has some sort of accident. The same situation is seen with the black cat; someone sees a black cat walking across his path and shortly after experiences some misfortune. In both cases, the person, who cannot explain the coincidence of the events, decides that since the ladder or black cat experience preceded the misfortune, it must have some causal significance.

In review of the lines of argument, it is suggested that the teacher ask students to provide examples of both acceptable and unacceptable reasoning from cause.

Perhaps it would help you to understand some of these variations of acceptable and unacceptable reasoning from cause if you would look for some examples. The most accessible source is one that we have already used--the letters to the editor in the newspapers.

Sample Introduction

Let's move on to the next major line of argument. When I asked you to react to the words "communism" and "democracy," you were able to do so quite easily. These words mean

Sample Introduction Continued

som thing to you; they signify something, as the word "apple" refers to the object that we have named an apple. When you hear the word, you often don't need a full description of what the word means; you have heard the word before, and you have made associations of meaning with the word. The word itself is all that is necessary to evoke your response. If you will look against the first letter to the editor we read, the one about the Ashbrook Amendment, we can use this as an example of reasoning from SIGN. In general terms, REASONING FROM SIGN means the use of the attributes, parts, or characteristics of something to represent it. The writer of this letter lists atheism as an attribute of communism. Using reasoning from sign, this writer then reverses the process and proposes that any person who has the characteristic atheism, must therefore be a communist. He maintains that this is logical process, there are dangers of misuse.

Discuss:

1. Is there anything wrong with this person's argument from sign?

   (Yes, he has over-generalized from one one condition. It is quite possible to be an atheist without being a communist, even if we admit that communists might be atheists.)

2. Can you think of any other examples that show reasoning from sign?

(The beard was/is an attribute of members of the so-called "Beat Generation." After this became a popular association, people with beards were likely to be called beatniks, even though there was no other evidence.)

3. Why do various groups of people wear uniforms?

(Because we have learned to associate certain positions with the uniforms of those who wear them.)
(This is reasoning from sign.)

To use this last example, it might be pointed out that reasoning from sign can be highly fallacious. Just as someone who is an imposter wearing an armed forces uniform might be mistaken by someone who judges only from the clothes, signs in argument may not represent what they might appear to represent.

Sample Introduction

Perhaps the most frequent fallacy in reasoning from sign is the misinterpretation of the sign for the thing itself. The little epigrams "The word is not the thing" and "The map is not the territory" are illustrations. In political writings, socialism, obviously an attribute of communism, is frequently used to signify communism itself, while it is obvious that there are socialist governments in the world that vigorously oppose communism.

While we can show that the mistaking of the sign for the thing signified is a logical fallacy, this same process is used quite universally in affective or emotional situations. In almost any religion, one can show that the material symbols of the power that is worshiped, such as statues, pictures, and

the like, are treated as if they were the actual power. Even with the name of the supreme being in most religions, worshippers consider it a taboo to use the name in vain, since this would be blaspheming the being that is represented.

The third line of argument, like argument from sign, involves the movement from the smaller to the larger. This is called REASONING FROM GENERALIZATION. In this process, we advance the conclusions found with some cases to a larger conclusion involving more cases.

Read this rather short excerpt from Huckleberry Finn and try to find the pattern of Pap's argument against the government.

Pass out copies of Pap's argument from Huckleberry Finn in chapter 6 beginning "I got the things all up to the cabin" and ending "but I reckon that was sort of piling it on, maybe."

Sample Discussion Questions

Discuss:

1. What is the specific event mentioned by Pap?

   (His encounter with a Negro from Ohio.)

2. Based on that specific event, what general conclusion does he reach?

   (That the "gov'ment" is no good.)

This is a rather obvious argument from generalization, but it does show the process fairly clearly. Pap uses a specific, single incident to show that the whole government is bad, or at least he tries to. We can see the process easily; now let's evaluate it.

3. What is Pap's physical condition?

   (He is drunk.)

4. What impression do you get of Pap's intelligence?

   (He's not shown as a mental giant. It is easy to see his attempt to elevate himself by degrading someone else.)

5. Our impression of Pap is not at all positive; an argument coming from this type of person is immediately suspected. Can you see this incident in Huckleberry Finn in view of a larger argument?

   (Yes, when the entire book is considered, it seems that Mark Twain has a definite purpose for including this passage.)
   (Throughout the book, Jim, the Negro companion of Huck Finn, is shown as perhaps the most noble character in the story. Especially when his virtures are compared to the obvious failings of Pap, the choice left to the reader is obvious. Mark Twain, it seems, intended the reader to be critical of Pap and of Pap's obviously weak argument.)

6. If this is true, then what argumentation process is Mark Twain using with this example?

   (The same process, GENERALIZATION, but there are more incidents used to support the conclusion than Pap uses in this argument.)

A longer discussion might be needed to elicit these responses.

Sample Introduction

At this point we have discussed three major lines of argument: ARGUMENT FROM CAUSE, ARGUMENT FROM SIGN, and ARGUMENT FROM GENERALIZATION. There are three more to discuss.

Sample Discussion Questions

1. If a person argues that the lowering of the voting ages in states A, B, C, D, and E was quite successful, and that, therefore, it would be successful in all states, what line of argument would he be using?

   (Generalization - some to more)
   (The cause-effect relationship is important too.)

2. Would it be any different if he said that lowering the voting age was successful in states A, B, C, D, and E, and, therefore it would be successful in state F?

(This is quite similar, but there is a difference; in the first case, he is generalizing about all states, and in the second, he is only applying it to one state.)

In the first statement, the arguer was moving from individual cases to all cases; in the second he was moving from the individual cases to another individual case. This could be diagrammed like this:

Draw on chalkboard

A B C D E	A B C D E
ALL	F F F F F

This line of argument is called ARGUMENT BY PARALLEL CASE, and it depends on the intrinsic similarities between two members of the same class of cases. The arguer is trying to show his audience a situation and transfer the characteristics of that situation into another situation that is very similar. If I drew a square on the board, drew a parallelogram next to it, and explained that a parallelogram has some intrinsic similarities to a square, this is parallel case reasoning.

Sample Discussion Questions

1. If, by the term "case" we mean "things that have the same interior angles, is my parallel case valid?"

   (Yes)

2. If we mean "things with sides of equal length, is it valid?"

   (No)

3. What could we say that parallel cases depend upon?

   (The definitions or criteria used for class membership.)

4. In general, when is argument by parallel case deficient?

   (When the cases compared are not members of the same class.)

Sample Conclusion

The most important criterion for parallel case argument, then, is that the compared cases must belong to the same class. In essence, the scientific experiment is an elaborate process of setting up the parallel case. The scientist carefully describes each step he took in reaching the conclusions he reaches from his experiment. His intention in doing this is to make it possible for another scientific investigator to follow his precise steps and reach the same conclusion. The truth of his conclusion, in fact, is determined by this process involving parallel cases. If a number of investigators can reach the same results, the original experiment is considered highly reliable. If this and some other tests that we needn't discuss here are all passed, the conclusion of the experiment becomes part of the body of scientific fact.

Sample Introduction

The process of talking about one thing in terms of something else is probably best called METAPHOR. The process of metaphor, however, is very broad. Perhaps you have always thought of metaphor as a small literary device, related closely to simile. The term can be used in this way, but it also seems to be the best term for the broader process of thinking about things in terms of other things. Used in this manner, metaphor is too broad to be considered a line of argument. All the lines of argument involve metaphor; as a matter of fact, the entire language process is a process of metaphor; our thoughts are expressed in terms of sounds and words.

NOTE: A more complete discussion of metaphor as the process of talking about one thing in terms of something else is found in Unit 1001 - The Nature of Meaning in Language.

One line of argument, ARGUMENT FROM ANALOGY, is probably the closest to the metaphor as a literary device. Let's try an example. "If you look around you next time you go to a play or a movie, see if the people in the audience don't remind you of rows of buckets waiting to be filled."

Sample Discussion Questions

Discuss:

1. Are the cases compared of the same class?

   (No)

2. Are there any similarities between them?

   (In a way. Audiences at plays or movies sometimes do seem quite passive. They've come to be entertained, and they want the actors to do all the work.)

The crucial question for argument from analogy is whether the similarities are outweighed by the differences. Certainly in this argument, there would be some question if one tried to look at all the possible grounds for a comparison. From the scientific point of view, the argument from analogy can never be valid; scientific reasoning does not allow different cases to be directly compared. On the other hand, I think we could say that argument from analogy in rhetorical reasoning can be quite valid. The bucket analogy we have used might not be scientifically correct, but on a less absolute basis, it does provide a striking and effective comparison.

The teacher might wish to emphasize this point.

All right, let's move on to the last line of argument we will be discussing. Suppose I tell you that all vertebrates have a spinal column. The cat has a spinal column, so there is reason to believe the cat is a vertebrate.

Sample Discussion Questions

Discuss:

1. How is this different from the process in argument from generalization?

   (This is moving in the opposite direction, from group to individual.)

2. What is the term that is used in biology for this process?

   (Classification.)

Right, and this is the term we use in argumentation. To use another, more argumentative, example, I would be using argument from classification if I said, "All teenagers should earn their own money. John is a teenager, so he ought to get a job to earn his own money."

Sample Summary Lecture

This concludes our discussion of the lines of argument. If you looked at a number of textbooks that treat argumentation, you would probably find as many different classifications as there are texts. These that we have discussed are all primarily a part of one of the modes of proof that we will discuss in the next section. The authors who use the lines we have discussed also consider statistics as a line of argument, but we will discuss statistics later in the unit.

Another variation suggested by some authors is ARGUMENT BY EXAMPLE, which is more general than the lines we have discussed. Argument by example could include GENERALIZATION, PARALLEL CASE, and ANALOGY, or combinations of these. The reason for using the lines included in this unit is that we would like to see more specifically the

direction of thought and the nature of thought. Since it is not as specific, argument by example is, however, somewhat easier to identify.

You might have noticed that there is sometimes difficulty in separating the lines of argument that we discussed. They often seem similar and overlapping. It is fairly easy to distinguish them if we use letters instead of actual arguments, but when we look at real arguments, we will find that these can be combined rather easily.

PROCEDURE: Pass out Worksheet #1 and copies of "A Scrap of Paper" by Hon. D. Lloyd George, Twin's Hall, London: 21 September, 1914.

For this assignment you're going to evaluate an entire speech. The speaker is David Lloyd George, who was Chancellor of the Exchequer in England at the outbreak of World War I. The purposes of this speech were two-fold: to provide a public justification for the British entry into the war, and secondly to recruit men from the immediate audience into a Welsh division of the British army. The situation that prompted the title of this speech would help put the speech into a meaningful focus. When the British ambassador to Berlin was discussing the threatening conflict, Von Jagow, the German Secretary of State, made the following statement: "Just for a word, neutrality, a word which in war times has been so often disregarded; just for a scrap of paper, Great Britain is going to make war on a kindred nation." This speech, then, uses a variety of argumentative and persuasive approaches, with the German remarks as the central focus.

WORKSHEET #1

Name _____

Paragraph Number	Line of Argument	Notation Illustrating the Line of Argument Make This As Brief As Possible
1.	CAUSALITY	Why are the British people in this war? (EFFECT) We are bound by honorable obligations. (CAUSE)
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

WORKSHEET #1 (Continued)

Paragraph Number	Line of Argument	Notation Illustrating the Line of Argument Make This As Brief As Possible
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		
21.		

WORKSHEET # 1 (Continued)

Paragraph Number	Line of Argument	Notation Illustrating the Line of Argument Make This As Brief As Possible
22.		
23.		
24.		
25.		

NOTE TO THE TEACHER

This is intended as a guide for the answers to Worksheet #1. You probably will find additional lines of argument to add to this brief list.

1. Causality
2. Parallel Case
3. Parallel Case
4. Analogy
5. Sign, Causality
6. Causality
7. Causality, Analogy
8. Parallel Case
9. Causality, Parallel Case
10. Parallel Case
11. Generalization
12. Parallel Case
13. Parallel Case, Generalization
14. Analogy, Classification (?)
15. Sign
16. Sign
17. Classification, Causality
18. Causality
19. Analogy, Sign
20. Causality
21. Parallel Case
22. Causality, Sign
23. Causality
24. Analogy
25. Analogy

Directions for Worksheet #1 - To Be Read to Class

On the worksheet provided, you are to analyze the lines of argument used in this speech. Each paragraph has been numbered. Identify the line or the lines of argument used in each paragraph with the terms CAUSALITY, SIGN, GENERALIZATION, PARALLEL CASE, ANALOGY, and CLASSIFICATION. In the space on the right side of the worksheet, make a brief notation illustrating the line of argument. One has been done for you as a sample.

As a supplementary activity, The teacher might wish to have students place the general argument into the Toulmin model.

Sample Transition

This concludes our discussion of the LINES OF ARGUMENT. Now we are going to look at another system of classification, the VARIETIES OF PROOF. These are more general than the lines of argument; the lines of argument would function <u>within</u> the varieties of proof. Here, perhaps more than in any other part of the unit, you will notice the similarities to legal terminology. As a matter of fact, most of these are directly borrowed. Since legal arguments provide the best models for reasoned argument in general, these borrowings are quite natural. The terms we will be discussing occur in pairs, and I would like to clarify something before we get into this. It might not always be easy to make absolute distinctions between these terms as if they were on opposite ends of a scale, but we can at least show them in relative position along the line scale.

Write VARIETIES OF PROOF on chalkboard.

Sample Introduction

When we discussed the CLAIM in the Toulmin model, one of the types of claims we mentioned was the claim of fact. You will remember that we also discussed the functions of the QUALIFIER, and one function was to register the degree of force intended for the claim. Let's see what happens when we add a qualifier to a claim.

Read to class or Write on chalkboard

The chairman of the Atomic Energy Commission said, "Within 85 miles of the blast center, a 100 megaton bomb would burn all material that you could normally ignite with a match."

The chairman of the Atomic Energy Commission said, "Within 85 miles of the blast center, IT SEEMS TO ME that a 100 megaton bomb would burn all material that you could normally ignite with a match."

Sample Discussion Questions

Discuss:

1. Do both statements offer the same information?

   (Yes.)

2. What effect does the qualifier have on this statement?

   (The second statement is more obviously an opinion; it is more personal than the first.)

3. One is stated as fact, and the other is more obviously a personal opinion. Could both of these be opinions?

   (Yes.)

4. Could both of these be fact?

   (Yes, depending on the chairman's knowledge of the subject.)

5. Would it make any difference to this statement if we could find that the entire Commission has reached the same conclusion after considerable testing?

   (Yes, it would add strength to this statement, because it would show that other experts agree.)

What you are seeing here are the two fundamental varieties of proof that are used in substantive argument. Supporting statements, essentially, are either factual or opinionated. If these are so central to argument, it would be worthwhile to find the major differences between them. Let's take OPINION first.

Write OPINION on chalkboard

Sample Discussion Questions

Discuss:

1. The dictionaries define an opinion as a judgment, belief, or view; what would cause a person to hold an opinion?

   (The person experiences something through his senses and reacts to it. Especially if it is something that is important to him, he forms a judgment about it--a judgment that he might use in the future.)

2. If the person is reacting to a sense experience, would this be the same reaction as others might have?

   (Not necessarily.)

NOTE: While the students might be able to respond in this general manner, the teacher will probably need to supply the term, MEDIATE.

3. Why would there be differences between the reactions and opinions of different people?

   (Past experiences, prejudices, learning, etc., might mediate the new experience.)

All right, if an opinion is a reaction of the individual, based upon his observation of something, our next problem is defining fact. Suppose I said that facts are, in many ways, quite similar to opinions.

4. Going back to the chairman of the Atomic Energy Commission, we had some difficulty deciding whether the statement without the qualifier was factual. Was there any way we could determine whether this was fact or opinion?

(We suggested that one might look at the statements of the other members of the Commission and the basis on which they made the statements.)

5. If all the members agreed, why should this CONSENSUS make the statement seem more factual?

(We could find that these men are experts in the subject, and we could find that their conclusions were based on scientific testing.)

6. If we questioned their conclusions, what could they do to support them?

(Show us the testing results they compiled, and, if that were not adequate, we could assume that they could conduct such a test to show us.)

Sample Lecture

Actually, these comments reveal two aspects of FACT.

First, we can say that facts are more predictable than opinion. If the fact has been carefully researched and stated, we can reconstruct the process and arrive at the same conclusions. Secondly, in a related manner, facts are based upon repeated, objective observations by more than one qualified observer, whereas an opinion is held by the single observer. I hope you see some qualifications that are necessary here.

There is very little difference between "fact" and group opinion or consensus. The distinction we will use is that factual information relies upon the consensus of qualified observers, following rigorously constructed standards and procedures. The "factual" content of information is subject to constant checking to be proven again or disproven, as has obviously been the case in the past. Some of the

ATTENTION

IMPORTANT DISTINCTION

world's most qualified observers once agreed that the world was flat; this was accepted as fact until that fact was disproven, another taking its place. Perhaps this is the most important distinction then; opinions are not subject to validity checking, while facts are. It must be remembered that factual information does not simply occur. People find, compile, state, and interpret facts, and this introduces the possibility of error and planned misuse. This is why the standards and procedures for factual information are so strictly defined.

Actually we have already covered many of the processes involved with factual material in our discussion of the lines of argument. Following these lines, qualified observers can find and agree upon facts. We have not considered the most widely used type of facts -- STATISTICS. If you think about it, I think most of you already know quite a bit about statistics. The foundation of statistics, mathematics, has been a major part of your education all through school so far.

Write STATISTICS on chalkboard.

Sample Discussion Questions

Discuss:

1. What would be your first reaction to the word? How would you define statistics?

2. Most people immediately associate numbers with the word "statistics," but this is only part of the picture; what makes statistics different from any groups of numbers?

   (Statistics have a specific purpose, while a random group of numbers would not.)

ATTENTION

Important Definition

Sample Lecture

Statistics, then, are more than numbers; statistics are numbers used for a purpose. Imposing a definition on you, I'll set up the meaning of this term that we will use in this unit.

STATISTICS ARE NUMERICALLY STATED FACTS.

Statistics, as a device in argumentation, is the most flexible we can use; the arguer can use statistical proof within any of the lines of argument. Statistics has its own systems of logical patterns, and these are used within larger patterns like the lines of argument. Partly because of this general flexibility and applicability, statistics is one of the most widely used methods of proof. There is, however, more to this. If statistics weren't effective as an argumentative and persuasive method, we would soon learn not to use it, but this is not the case. Ours is a scientific age, and we are impressed by things that seem to be scientific; our thoughts and actions are influenced by recommendations that purport to be scientific. Science, of course, is statistically oriented. The predictions of science are statistically based.

One way of illustrating our preoccupation with statistics is to examine the way we frequently manipulate numbers in leisurely statistical "games." Quite frequently the newspapers will find that they have a small space in a column that has not been used, so they have a file of "fillers" that can be

Sample Lecture Continued

put in. These are not recent news; they usually include some mildly interesting or surprising statistics like the average weight of bull elephants in Tanganyika. Radio broadcasters frequently cite non-essential, but mildly interesting statistics about the weather of forty years ago. These are only a few examples of the way we play with numbers. In a type of metaphorical extension, we often try to measure amounts of money by discovering how tall a pile of dollar bills would be if we had a million of them.

The arguer recognizes this willingness to accept statistics, and as a result, statistics are widely used for a variety of argumentative purposes. The cautionary distinction is the same as the precaution we made about the use of facts in general. Statistics are compiled by people, and there are many possibilities for error and intentional misuse. Fortunately, the critical thinker has firm means of evaluation, if only he chooses to use them. The study of statistics includes strict controls, standards, and procedures. If we learn something about these, there is a better chance that we will be able to critically evaluate statistics in argument.

Here are three examples of statistical uses. I'd like you to look for differences between them.

1. At the opening of the 1964 Republican convention, it was reported that Barry Goldwater would get 755 delegate votes.

2. In the first year John Hopkins University admitted women as students, thirty-three and one-third percent of those women married faculty members.

3. The average price of haircuts in this city is $2.00.

Discuss:

Sample Discussion Questions

1. What was the statistical operation in the first example?

   (Simple projected or estimated measurement--counting.)

2. How about the operation in the second example?

   (A percentage--a comparison of the magnitude of one group compared to another.)

3. How about the third?

   (An average.)

Sample Generalization

In these three examples, you are seeing the three basic statistical operations: MEASURING AND COUNTING, COMPARISON, and MEASURES OF CENTRAL TENDENCIES. Let's look at each of these and provide the essential questions the critical reader or listener might ask when he hears or reads these. Of course, the arguer should also think about these before he uses the operations.

Discuss:

Sample Discussion Questions

1. In our first example, the projected count of Goldwater's delegate votes, let's see what questions might be asked.

NOTE: The students might not be able to use this terminology, and the teacher might wish to provide it. The teacher might also wish to use more examples and a more inductive procedure.

(Are the units represented by the statistics clearly and consistently defined? Are these votes all from accredited delegates and not from alternate delegates?)

(Is the sample large enough to warrant a projected estimate of the magnitude of an entire population? In other words, were all 755 of these actually counted, or was this figure based on a sample of less than the entire delegate population?)

(Does each unit of the population have an equal opportunity to be included in the count? This differs slightly from the preceding question. Did they ask all the delegates, or did they stop at 755?)

Put in very general terms, these questions ask:

A. "Are you measuring units that you can define; are these units consistent?"

B. "If you are generalizing or projecting from the count of a part of the population, have you counted enough units to accurately represent the larger population?"

C. "Is the measured sample made up of units of the same type and distribution found in the larger population?"

2. In the second example, the percentage of women marrying faculty members at John Hopkins, we have a percentage--a comparison. There are some questions that must be asked before we generalize from this statistic; can you find the most important one?"

(How many women were admitted that year?)

To answer your question, there were three. What does this statistic mean then?

(One of the women married a faculty member.)

Can we make any long-range predictions from this?

(No, the sample is far too small.)

When any percentage statistic is used, we must know what the base of the percentage is. This is one of the most essential questions. There are other types of comparison that can be used,

and these aren't illustrated here. I'll just provide the questions we might ask of general comparisons.

A. Are the magnitudes of each compared item accurate?

B. Are the compared units really comparable?

If we can answer "yes" to both of these questions, there is a fairly good chance that the comparison is valid.

3. The third example used the word "average." I purposely used that term because it is inaccurate. Actually the word "average" can mean three things. We call these the MEASURES OF CENTRAL TENDENCY. In this statistical operation, the term "average" is meaningless; the arguer must break this down into one of three parts.

Sample Definitions

MEDIAN - The figure so chosen that half of the items in a series are on one side of it and half are on the other.

In our example, this would mean that half of the haircut prices were more than $2.00 and half were less than $2.00.

MODE - That item that occurs most often. We have already used this term in the modes of proof, that is, the most often occurring proofs.

In the haircut example, this would mean that most barbers charge $2.00.

MEAN - This is the figure obtained by dividing the sum of a series of items by the number of items. This is probably what most people think of when they use the term "average."

In the haircut example, this means that if one added up all the haircut prices in town and divided this sum by the number of the prices, the answer would be $2.00.

4. If all the haircut prices in town were exactly the same, $2.00, what would these measures of central tendency be?

(The mean, median, and mode would all be $2.00.)

Sample Lecture

The teacher might wish to use a more inductive approach, using examples to introduce each set of terms.

The distinctions between FACT and OPINION are probably the most important to the study of argument. I think you have seen that these distinctions are not always as easy to make as they might seem. The other varieties of proof that we will be discussing might be finer distinctions. With these, as was the case with fact and opinion, the names are simple and direct. You should not have difficulty with these; a little common sense will enable you to figure out the distinctions.

DIRECT -- INDIRECT PROOF

Direct Proof tends to show the existence of a fact in question without the intervention of the proof of any other fact. If the fact in question were, "The student council has voted against additional social activities four times in the past five months," direct evidence would be available in the minutes of past meetings.

Indirect Proof tends to show the existence of a fact in question by proof of other facts from which the fact in question might be inferred. In order to prove the statement, "The student council should initiate more social activities," one might have to establish at least two other facts: that there is a desire for such activities, and that the school calendar permits additional activities. A further fact that one might

have to establish is that the student council is the appropriate body to act on this suggestion. These indirectly lead to the original claim.

PRIMARY -- SECONDARY PROOF

Primary Proof is original supporting material. In the student council example, the primary proof would be the actual minutes of the meetings. In this case the original source of information is used. In Secondary Proof, the primary proof is passed through an intermediary. A student standing in the lunch line might tell you what the voting record has been; this would be secondary proof. If the source of information were the state of the union address, the actual transcript would be the primary proof, while the report of a member of the audience would be secondary proof.

PREARRANGED -- CASUAL PROOF

Prearranged Proof is created and preserved for the specific purpose of later being used as evidence, data, or backing. Legal documents and scientific experiments are good examples of this.

Casual Proof is not set down with future argumentative purposes in mind. Casual proof relies more upon observed, but uncontrolled happenings. After the occurence of the events, the arguer selects from this body of proof the material that he can use with his argument.

WRITTEN -- UNWRITTEN PROOF

The distinction here should be obvious. Oral comments are difficult to check, while written, witnessed records are more permanent. Advances in sound repoduction, however, might make oral comments on tape recordings admissable in legal cases.

NEGATIVE -- POSITIVE PROOF

Positive Proof directly supports that which we are trying to prove.

Negative Proof is the absence of proof to the contrary; this would say, in essence, that something is proven because there is no evidence to disprove it. There is a weakness here. Mark Twain asked, "How do you know a fish can't climb a tree? Did you ever see one NOT do it?

Sample Conclusion

After hearing these, you should ask, "What does all this mean to me? What value will the understanding of these distinctions have for me?" Well, let me suggest a general answer. Perhaps the understanding of these might not make the essential difference in the force of your argument in every situation, but these should be understood for the general understanding of the process you are using or the process that is being used on you. Perhaps there are weaknesses within these areas. For instance, it is possible that an argument might be comprised of the following varieties:

opinion, indirect, secondary, unwritten, and negative. In an argument like this, there are numerous possibilities for damaging weaknesses, but the opponent of this kind of argument would have to be familiar with these varieties to make full use of these weaknesses.

Sample Transition

I'd like to move now to some general tests of proof that should be a part of substantive argument and its evaluation. From the material you have seen so far in the unit, I think you should be able to suggest most of these. Spend a few minutes thinking about the standards we can suggest for substantive proof, and write down all you can think of now. We'll try to put together a list of these from those you suggest.

PROCEDURE: Student responses to this activity will vary widely. The suggested standards will probably be similar to those that follow, and the teacher might wish to provide these terms, which will probably be more concise than those the students suggest.

QUANTITY

Is there enough proof offered to logically lead to the inferences that are made from that proof?

CLARITY

Is the proof clearly stated so that the reader or listener understands the proof in the manner in which the arguer has intended it?

INTERNAL CONSISTENCY

Is the proof in the argument consistent throughout the argument, or does it contradict itself?

EXTERNAL CONSISTENCY

Is the proof in this argument consistent with known and accepted facts in general, or does thie proof contradict these previously accepted facts? This should be cautiously used, since many of the major breakthroughs in science were not externally consistent.

VERIFIABILITY - RELIABILITY

If I retraced the steps used in finding this proof, would I reach the same conclusions? If I looked in the same places the arguer has quoted for this information, would I find the same things? Has he quoted it correctly?

AVAILABILITY

The arguer has cited information from a specific source; would this source be available to anyone else for evaluation?

COMPETENCY

Is the arguer competent or qualified to make the inferences he does? Is the source he quotes competent to make a judgment on this matter? On what qualifications is this proof offered?

LACK OF BIAS

Is this an objective picture of events, or is this colored by the arguer's personal beliefs? The same could be applied to the source.

ATTENTION

If the critical source or object of an argument can receive satisfactory answers to all these questions, this DOES NOT mean that the argument in question is reasonably logical. There might well be opposing arguments that are just as logical, and the critical reader or listener now has the good fortune of having both the opportunity and the responsibility for a rational choice.

Sample Conclusion
The Ethics of Argument

We have finished our discussion of the various terms of argumentation, but before we move on to the application of these terms to some sample arguments, I think it might be worthwhile to talk briefly about these responsibilities I

Sample Conclusion Continued

just mentioned. Most of the standards we have discussed have been centered around the effectiveness and logical adequacy of arguments. As in many other fields, however, there are both internal and external standards, and we might call these external standards "The Ethics of Argument."

Most discussions of ethics eventually must deal with the questions of ENDS AND MEANS. This is particularly true with the ethics of argumentation and persuasion. There are two basic questions: do the objectives we have justify our methods of reaching them, or must our means be compatible with our objectives. Sitting here in the classroom, it is easy to offer the usual platitudes about this, but even the most cursory glance at the practical workings of our culture will show that no single standard of ends and means is followed. The strongest tendency is for us to expect the other person to use means that are compatible to his ends, but when we become personally involved, we feel no pangs of conscience about justifying questionable means by glorifying our goals. This is the kind of process you saw in one of the early examples in the unit--the letter to the editor about atheists and communists.

The control of ethics in argumentation is rather elusive. In some cases, such as the law court, strict ethical standards have been carefully codified. In other cases the standards might be upheld by the audience. If the audience will not accept an argument because it is believed to be unethical,

the arguer soon learns that he must change his approach with that particular audience. Perhaps the most difficult controls to generalize about are those that are personal to the person using the argument. We can try to make our own standards consistent with those we recognize in the rest of the culture, but we have already recognized that the rest of the culture may have some questionable standards. We can try to set our standards to be consistent with philosophical, moral, and religious standards, but here again, it is obvious that these are not always the same. The choice, at any rate, is not always as easy as it might seem.

For a list of standards more specifically written for argumentation, we could look at the following, taken from the book, Decision by Debate:

"Underlying all rules for the presentation of evidence (support) in critical deliberation is this basic test; Is the evidence set forth in such a way that the reader or listener is able to assign it exactly the weight it deserves--no more no less?

I. Selective reporting

   A. Suppressing data unfavorable to the position one is supporting.

   B. Omitting words or sentences from quoted passages, or figures from sets of statistics, thus altering the meaning or significance of the evidence.

   C. Citing a statement or statistic out of context.

   D. Failure to date information.

E. Failure to state the source of information when knowledge of that source is essential to a fair evaluation of the facts reported.

II. Altered reporting

A. Deliberate falsification.

B. Putting information into an emotional setting, or exerting irrelevant emotional pressures to help gain its acceptance or rejection.

C. Witholding information until a point when it can no longer receive careful consideration, or when an opponent has little chance to answer it.

Placed in very general terms, we could say that any deliberate misuse of any aspect of argument would be considered unethical in formal settings. In informal settings the standards are usually more relaxed, but this same general ethic might well be applied to informal argument as well as formal.

NOTE TO TEACHER ON UNIT ACTIVITIES

On the following pages, you will find the unit activities that have been suggested. The excerpts for these have been provided. It is recommended that the class spend considerable time on these activities; they are intended as an opportunity for students to apply the terminology and the concepts they have learned throughout the unit. The teacher might wish to use parts of these activities earlier in the unit to illustrate key terms or concepts.

It is assumed that the teacher will adapt these assignments to the needs of the particular class and situation. A term paper assignment has been included for those situations in which it might be appropriate.

Two forms of a final unit examination have been suggested. One is a rather short objective test, while the other involves considerably more writing. The essay test might also be used as a final class activity if the teacher chooses to use the objective final test.

UNIT ACTIVITY #1 - THE RESEARCH PAPER

It should be obvious to students working with this unit that argumentation is not only a vital, but a pervasive process in democratic cultures. The possibilities for worthwhile topics for the research paper seem unlimited. The subject matter of argumentation ranges through all aspects of our culture; it is important, versatile, and interesting. The teacher has the opportunity to allow for the widest range of individual differences. For the less able student, the assignment can be shorter and more limited in scope. For the gifted student, there is an opportunity for original thought that should challenge him appropriately. A few suggested topics are listed below:

Argumentation in:

...politics, international, national, and local.
... wartime propaganda.
... the cold war.
... advertising.
... business interactions.
... social interactions.
... famous speeches and documents.
... literature.
... drama
... religion
... science
... other cultures

Comparison between classical and modern theories of argumentation.

Ethics and argumentation - the "ends and means" controversy.

The relationship between argumentation principles and literary form.

The alternatives to argument - Historical examples of the breakdown of the argumentative process and the alternative of coercion.

Argument and metaphor.

Public or private consequences of rejection of or apathy toward the principles of logical argumentation.

The relationship between argumentation and freedom of speech and inquiry.

Argumentation in totalitarian states.

Argumentation in the courts: reason and justice.

Argument and modern philosophy: The argument of existentialism.

In assignments of this type, the teacher will need to use extremely careful guidance with student topic choice. Students are likely to try to handle more than they can in such a paper. Careful limitation of topic is crucial to the success of this assignment. The tendency for students to overgeneralize or oversimplify is strong. Individual conferences on topic choice are going to be necessary. After students have begun the paper, additional guidance and examination will be necessary.

UNIT ACTIVITY #2 - ANALYSIS OF ADVERTISING

To The Teacher:

Write the following statements on the chalkboard:

"This coffee tastes good because it's Butternut."

"Ask the man who drinks it black."

"If it tastes good black, it tastes good with cream and sugar, too."

Assignment:

(May be read to class)

Analyze this fairly typical commercial in terms of the Toulmin model.

Identify the parts of the argument, and evaluate their use.

If there are any parts missing or implied, fill these in with parentheses around them to show that they were not actually stated in the argument.